

## REPAIRING HOLDING TANK CONNECTIONS

Anyone else having, or about to have, holding tank leaks?

<picPROBLEMwide>



When I first chased down my first few dreaded drips on the pavement I remember actually thinking "...simple maybe a stronger clamp would do". Once I looked closer I realized the connection collar was disintegrating due to stress cracks. The cracks ran not only on the collar parallel to the piping but also into the base part that welds into the tank body. Stress fractures due to improper mounting, UGH! More on that in a bit.

<picPROBLEMclose>



Turn's out, no real surprise, replacement tanks for Isuzu Treks are not made anymore AND I found after a lot of research, are nearly impossible to retrofit. After much wailing and gnashing of teeth, many phone calls to tank manufacturer's, the owner of INCA Plastics in Hesperia, CA answered the phone. I walked him through his huge online catalog and pointed out all the models that came close but no joy...he took pity on me.

<picOUT&PREPPED>



I promised to pressure wash and bleach scrub them thoroughly and he told me to drive them up to his production plant, about 3hrs north of LA, on a slow day and he'd see what he could do.

After a quick look and deciding my original ABS tanks were in great shape but the PET (white-ish) attachment collars were toast. He called over one of his production line guys and told him to help me out...30 minutes later... I had two tanks with brand new collars stronger than the original!

<picFIXDwide, close, black, gray>





New PET collars were "Spin Welded" in by hand. Tanks are like NEW! This is not a repair for any novice, maybe the smaller ports or sensors up to 1"-ish(?). This guy, gentleman/savior, had arms like tree trunks and he did this kind of welding all day long (it's how they install them upon manufacture).

It takes a router of 5 HP + at speeds of 30,000rpm, friction creating heat, almost instantly melting the new 3" collar into the tank wall. Then when abruptly stopped, a very steady hand / arms hold the fitting perfectly still while it cools into place.

Not to gloat, I feel like I REALLY lucked out finding these friends and calling on the right day. When I asked the owner directly if "...they'd want more repair business like mine?" He would only shrug. He also had trouble coming up with a price for the life saving repairs and hesitated to ask for \$50...for both...I said "Oh HELL NO" then doubled it, in cash and added a bit more for pizza for the shop. They've recently moved to San Bernadino, CA and seem hard to get a hold of.

The entire nightmare of tank collar failure can be prevented from ever happening simply and cheaply!

Off the shelf at any Home Depot, Lowe's, ACE, etc. plumbing aisle for about \$4 will be a "soft union collar". A simple rubber collar to go between the dump manifold pipe and hard tank collar, in sizes common for both gray and black tanks. They even come with the stainless pipe clamps needed.

<pic I'll shoot tmrw and send>

This soft union will absorb the really hard twists and bumps. Yes, you will have to replace them every few years when the rubber starts to crack but this is a MUCH kinder and less expensive than catastrophic Black Water tank failure at 50 mph or worse at a stoplight...in front of a police officer!

Without it and just jamming the hard ABS pipe into the hard PET tank collars (at least on Isuzu Treks, probably all models) you can expect even gentle road bumps to act as a LEVER at the end of some 4+ feet of pipe wrenching and eventually destroying your tanks' PET collars.

Not many RV repair shops do spin welding and even fewer can weld collars 3" in diameter...even IF the rest of the surrounding tank is in good shape.

Make sure when searching around that the repair shop has done this before and is comfortable at it. The tank will have to be taken out and well cleaned since the spinning of the new collar actually melts into place so positioning and timing is vital.

You only get one chance to have it done right but it can save not only headaches but beaucoup bucks!

Recently researching for a fellow Trekker with the same failure at Quartzite, I did find someone not too far away (2hrs) willing to do up to a 3" spin weld repair IF the conditions were right:

Philip's Plastics, LTD

3801 East Roeser Road

Unit 18

Phoenix, AZ 85040

Tel# (602) 470-1808

Fax# (602) 470-1883

Email: [philipsplastics@aol.com](mailto:philipsplastics@aol.com)

<picOLD ROUTING>



<picIN>



With the tanks reinstalled I couldn't resist to re-plumb the whole dump manifold and get rid of some real silly contorsions of pipe routing. I gained another 2 inches or more of ground clearance back there!